### INTERNATIONAL SEARCH REPORT

International application No. PCT/FI 2004/000184

#### A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H04B 3/54, H04B 3/56, H04B 1/00
According to International Patent Classification (IPC) or to both national classification and IPC

#### **B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

# IPC7: H04B, H04M, H03F, H03G, H03K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

## SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

### EPO-INTERNAL, WPI DATA, PAJ

#### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4451801 A (MONTICELLI, D M), 29 May 1984 (29.05.1984), see whole document	1-3
A	EP 0267887 A1 (TELEFONAKTIEBOLAGET L M ERICSSON), 26 October 1987 (26.10.1987), claims 1-7, abstract	1-3
A	US 6239617 B1 (GUERTIN, D L ET AL), 29 May 2001 (29.05.2001), see whole document	1-3
A	US 6020787 A (KIM, J D ET AL), 1 February 2000 (01.02.2000), see whole dcument	1-3
	<b></b>	
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X	Further documents are listed in the continuation of Box	C.	X See patent family annex.			
*	Special categories of cited documents:	"T"	later document published after the international filing date or priority			
"A"	document defining the general state of the art which is not considered to be of particular relevance		date and not in conflict with the application but cited to understand the principle or theory underlying the invention			
"E"	earlier application or patent but published on or after the international filing date	"X"	document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive			
"L"	L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other		step when the document is taken alone			
	special reason (as specified)	"Y"	document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is			
″0″	document referring to an oral disclosure, use, exhibition or other means		combined with one or more other such documents, such combination being obvious to a person skilled in the art			
"P"	document published prior to the international filing date but later than the priority date claimed	<b>"&amp;</b> "	document member of the same patent family			
Date of the actual completion of the international search			Date of mailing of the international search report			
19	August 2004	2 0 -08- 2004				
Name and mailing address of the ISA/		Authorized officer				
Swedish Patent Office						
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Facsimile No. +46 8 666 02 86		Telephone No. +46 8 782 25 00				

# INTERNATIONAL SEARCH REPORT

International application No. PCT/FI 2004/000184

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	EP 1089453 A1 (CANTONE, G ET AL), 4 April 2001 (04.04.2001), claims 1-3, abstract	1-3
A	 DE 19940544 A1 (ABB PATENT GMBH), 1 March 2001 (01.03.2001), claims 1-5, abstract	1-3
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# INTERNATIONAL SEARCH REPORT Information on patent family members \*\*

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